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#### ABSTRACT

This training program was designed to serve as the first part of a two-stage concentrated course leading to the doctorate in educational research, and to train personnel for intermediate responsibility in national, state, and local educational research. Twenty young teachers, selected for dynamic personality, high intellectual caliber, and commitment to complete the program, were to be subjected to a rigorous program consisting of four basic units: 1) research, 2) statistics and evaluation, 3) practical research experience, and 4) supportive studies. Participants worked for one day a week on field projects in research laboratories, were involved in a variety of professional activities, and all earned grades considerably above the usual University of Miami graduate standards. The program appeared to provide a good foundation for doctoral work and for relatively sophisticated research positions. (MBM)

# FINAL REPORT Project No. 6-2562 Grant No. DEG 2-6-062562-1358

# TRAINING OF RESEARCH CENTER PERSONNEL

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June 23, 1967

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education Bureau of Research

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George J. Mouly

June 23, 1967

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University of Miami

Coral Gables, Florida 33124



## TRAINING OF RESEARCH CENTER PERSONNEL

## FINAL REPORT, 1966-67

OBJECTIVES: The program was undertaken to help meet the acute shortage of qualified researchers now felt in all areas of American education. It was designed first of all as the first of a two-stage concentrated course of study leading to the doctorate in educational research, and secondarily where this was contra-indicated, to train personnel for intermediate responsibility in the national, state, and local educational research picture.

# The request for USOE support proposed

(1) to identify for each of the next two years, 1966-67 and 1967-68, twenty (20) young teachers (mainly, but not exclusively, from the South) who show definite research promise and (2) to subject them to a rigorous research training program to be conducted at the University of Miami — thus equipping them with the understandings and skills necessary for them to fill positions of responsibility in the local and national educational research effort.

The program was conducted according to specifications in all its major aspects. It has been funded for a second year. The present report covers the first year of operation (June 1, 1966 - June 15, 1967).



THE TRAINEES: Sixteen trainees were selected for the complete program (one summer session and two semesters). Illness over the summer caused one of these to be dropped as of the end of the first week so that five had to be added in September instead of the four originally planned. These trainees met the following qualifications as outlined in the proposal to the U. S. Office:

- (a) Dynamic personality with strong interest in research; (to be appraised through recommendation of their superiors and through interview, where possible).
- (b) High intellectual caliber; they would have to be clearly eligible from the standpoint of test scores (e.g., G.R.E., Miller Analogies, etc.) and scholarship for admission to the University of Miami Master of Education program. It is anticipated that a substantial number would eventually pursue the doctorate.
- (c) Age: 22-35; one year's teaching experience minimum; and
- (d) Commission to complete the program.

The original fifteen had had no previous graduate work; the remaining five had, prior to June 1966, taken the University of Miami research course (Education 601) from the Director of the program (and no other graduate work). They were selected on the basis of demonstrated scholarship and on the understanding that they would take the course in educational statistics (Edu. 663) so as to join the program in the fall with the identical background as the original fifteen.

Despite the late start in recruiting, it was possible to select students of high caliber as revealed in the accompanying table from the interim report.

TABLE 1: CALIBER OF THE PARTICIPANTS\*

	Undergraduate	Gradu	Graduate Record Examination				
Trainee	G. P. A.	Verbal	Quant.	Adv. Educ.			
1.	3.00	580	610	490			
2.	3.57	570	640	610			
3.	3.30	520	580	540			
4.	2.21	380	640	450			
5.	3.29	640	690 <sup>-</sup>	590			
6.	2.56	530	380	490			
7.	3.30	550	620	530			
8.	3.89	570	730	580			
9.	3.53	540	440	460			
10.	3.53	610	520	590			
11.	2.65	470	660	510			
12.	3.13	580	330	540			
13.	3.40	430	640	560			
14.	3,60	480	550	520			
15.	3.40	640	460	540			
16.	3.70	510	510	660			
17.	3.18	560	480	580			
18.	3.60	610	380	470			
19.	3.42	730	620	580			
20.	3.10	440	410	510			
Mea	an 3.28	547.0	544.5	540.0			

<sup>\*</sup>The seven participants who presented N.T.E. scores had an average of 672 on the Commons section.



THE PROGRAM: As planned, the program consisted of four basic units: (1) research; (2) statistics and evaluation; (3) practical research experience; and (4) supportive studies. For each of the two years, it will extend through one six-week summer session and the two semesters of the academic year as follows:

#### Summer Session, 1966, 1967

Educational Research, Edu. 601 4 cr Mouly
Educational Statistics, Edu. 663 2 cr Dertke

Total 6 cr

# Fall Semester, 1966-67

Adv. Edu. Statistics, Edu. 664 3 cr Mouly 2 cr Bibb Evaluation, Edu. 561 Curriculum, Edu. 620 3 cr Lunaas 1 cr Computer Programming, IEN 272 Kromp Supervised Field Experiences 2 cr and Seminar Lunaas · 2 cr Conway and others Independent Study Total 13 cr

#### Spring Semester, 1966-67

3 cr Conway Adv. Edu. Research, Edu. 666 Edu. Administration, Edu. 670 (modified) Sjoding 3 cr Adv. Edu. Psychology, Edu. 609 Mouly 2 cr Supervised Field Experiences 3 cr and Seminar Lunaas 2 cr Conway and others Independent Study

Total 13 cr

Total 32 cr



THE FACULTY: The Director administered the program and taught one course in each of the three sessions. Three members of the School of Education faculty participated along with the Director as "the faculty" of the program; all had other teaching responsibilities in the overall graduate program of the School of Education. In addition, the Director of the Computing Center taught the computer course, the regular School of Education tests and measurements instructor taught, for the program, a research-oriented section of his course in evaluation, and a part-time instructor from the Department of Psychology taught the introductory course in statistics. The relatively small self-contained classes, the weekly seminar (with the full faculty present at all sessions), and the closely supervised field experiences provided relatively unlimited opportunity for student appraisal and guidance.

STUDENT PROGRESS: Fifteen of the twenty participants completed the program and received the M. Ed. degree on June 5, 1967. Of the remaining five, three failed the English competency test for admission to candidacy, a weakness not uncommon among mathematics majors; one did not take the comprehensive examination and three of the course finals because of serious family illness; and one simply forgot to apply for graduation. All are in good standing; all will graduate at the end of the first summer session.

As shown in the accompanying table, the participants earned grades considerably above the usual University of Miami graduate standards — both in program courses (GPA = 3.44, exclusive of field experiences) and in other courses taken as electives outside the program (GPA = 3.39). The latter included courses in Mathematical Probability (five students), Mathematical Statistics (five students), The Nature of Scientific Inquiry (three students), Sociological Bases of Education (ten students), etc. In addition, the five students who joined the program in the fall had Edu. 601 and Edu. 663 prior to entering the program.

The participants spent one day a week for the two academic semesters working on an on-going field project under the direction of a project director and the overall supervision of a member of the program faculty. The weekly seminar served to consolidate the experiences, to resolve problems encountered in the field, and to present topics not specifically part of any one course, e.g., the role of the consultant. A number of guest speakers were presented.

The field experiences presented a number and variety of activities. One participant did his total field work (two semesters) in the Southeastern Educational Laboratory under the supervision of Dr. Harry Hall, its Coordinator. One student worked the two semesters in the Broward County Research Office under the close supervision of three Ph.D.'s; another

TABLE 2: GRADES OPTAINED

Semester: Sum. 66   Fall 1966						Spring 1967								
Semeste.	r: Su	1. 00	<del> </del>	IEN	<u> rala</u>	1700		-		-	693	693	694	
Course:	601	663	561	272	620	664	693*	694**		666	DW	ZW	HW	GPA
Credit:		2	2	1	3	3	. 2	2	2	3	3	2	3	32
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3	A.	B°	В	I	<b>B</b>	В	A	A	В	В	В	A	A	3.42
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4##	B.	В	A	<b>A</b>	В	В	B°	A	C	В	В	B°.	A	3.18
_	<u> </u>	. !		•	70	**	C°	.	В	B	Ľ	B°	A	3.38
5	A	A	A	A	В	В	Ü	A	D	D	ı.	<i></i>	*	
6	В	В	В	С	В	В	Æ	A	A	<b>A</b>	A	A	A	3.50
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8	В	A	A	À	<b>B</b> .	A	C°	A	I	I	A	I	A	3.28
		" l	-	À	A	<b>B</b> .	A	A	A	·A	A	B°	A	3.78
÷ <b>9</b>	A	В	A	A	A	D	- <b>A</b>	*	-					
10	A°	A°	A	· <b>B</b> ·	A	В	A	A	A	. <b>A</b>	A	A°	A	3.88
÷ .							_			_	_	~0		2 / 1
11##	A	A	A	. <b>A</b>	B	В	A°	A	C	<b>B</b> .	В	B.º	A	3.41
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20	B°	B°	В	В	Ď.	D								- 4- 2- 2-
Anna 1	2 65	2 55	2 45	3.21	3.25	2 95	3.75	4.00	2 35	3.68	3.60	3.33	4_00	3.55
Total	3.65	ا دد•د	3.45	3,61	J • 4 J	J • L.J.	Ž*13	The VV	11,00,00	30-3	-	40-	••••	(i ·

<sup>· -</sup> Regularly scheduled course outside the program, e.g., Math. 524.



<sup>## -</sup> Students completing 34 total credits (Eng. 252, 2 cr., added to program)
++ - Same as ## above but 2 credits to be completed first summer session 1967

student joined him in midspring. One student worked for the fall semester in the University of Miami Office of Institutional Research under the supervision of Dr. Matthew Steele. The remainder were assigned to various projects in the rather extensive R and D Division of Dade County Public Schools. Unfortunately, this division was instituted only in the summer of 1966 and was barely in operation by September. Besides, it was staffed, in the main, by project directors of relatively limited research background. As a consequence, field experiences got off to a slow start and a couple of wonths elapsed before the operation could really get under way.

Six of our participants spent the whole year on a project in scheduling and staffing under the direction of Mr. Alvis Corum, one of our own doctoral students. They compiled a catalog of scheduling innovations, synthesized the research data on the seven-period day, collected data from a couple junior high schools and devised a computer program for scheduling students and staff, and developed a set of slides describing the project. Two students investigated the extended school year and devised and administered questionnaires to teachers, parents, and pupils. The report has been presented to the Dade County Schools where the question of the four-quarter school year is now under consideration. Another group of ten spent about one month on an inservice educational project exploring the relationship between teacher self-concept and classroom verbal

Other projects in which our students were involved included the evaluation of a couple of Dade County projects, a study of the relationship between physical development and reading proficiency, and a follow-up at the senior level of a study of tenth grade language arts carried out two years ago by the Director of SEL. A number of students are now employed as part-time help in completing some of these projects.

PROFESSIONAL ACTIVITIES. The participants and faculty were involved in a number of other professional activities. Some of the students and the Director attended the FERA annual meeting at Daytona Beach in January and met some of the research people in the State, e.g., Dr. Russell Kropp of FSU who later spent two days with us discussing the work of the Institute of Human Learning of which he is the Director, some aspects of computer-assisted instruction, and his recent CRP on the taxonomy of educational objectives. Other guest speakers included Dr. Ralph Hall, Coordinator of the R and D Division of the Dade County Schools, three members of his staff, Dr. Herbert W. Wey, Associate Dean of the School of Education, and others.

A particularly significant meeting we attended was that of the school administrators on Miami Beach in November, at which Dr. R. Louis Bright of the U. S. Office was a feature speaker. After his presentation, he was gracious enough to

accept our invitation to meet with our group in seminar and spent the whole afternoon with us on campus.

The faculty attended such professional meetings as the annual AERA meeting in New York (Dr. Conway also attended a presession on Bayesian statistics), the ASCD Convention in Dallas, and other educational meetings on Miami Beach.

FUTURE PLANS: As a group, the participants plan to make use of the training received. Some of these plans are tentative and subject to change in the next month or two as the graduates pursue two or three leads. Some of these prospects may not materialize, of course. Present indications are that four will be in full-time enrollment in a doctoral program in research in the fall of 1967; two others have been accepted for doctoral work in research and are weighing the offer. Two others will go in other fields; one in School Administration at Miami, another in Curriculum.

Five have been seeking employment in a research capacity out of town. One has been hired, with the understanding that he complete his doctorate within the next three or four years. A couple more will probably be hired in out-of-town research positions. Actually, they have received a number of exceptionally good job leads; unfortunately many do not seem to want to leave Dade County. Three are being considered for research positions in the R and D Division of the Dade County

Schools; one will participate in a computer programming Institute this summer with possible allocation to the computer end of the R and D Division. Three have hopes of taking the degree in research at the University of Miami in the near future.

Two have accepted teaching positions in a semi-research setting, one at Nova High School in Broward County, and one at Miami Springs Semior High School, both schools well known for their orientation toward research and innovation. The fact of their training in research was an important consideration in their selection. Another participant was offered a Nova position but apparently will decline in order to pursue the Ph.D. in Curriculum at Miami beginning in September.

Actually, only one is (rather definitely) going to teach next year, this with the general approval of the faculty. Two or three others are also prospects for regular teaching positions for the fall — but because of inability to locate a research position rather than by choice. The group's tentative plans for the coming fall are shown in Table 3.

An unexpected turn of events that proved disconcerting to the participants was the relative shift in the local research employment situation. A year ago, as the Research Training Program and the R and D Division of Dade County Public Schools were getting under way at relatively the same time, the latter was seen as a logical source of likely employment for the

TABLE 3: PLANS FOR 1967-68

	G	R E		Docto	orate	Research	Teaching	Teaching
Stud.	V+Q	EDU.	GPA	Res.	Other		+ Res.	
1	1190	490	3.59	đ				
2	1210	610	3.78			P		
3	1100	540	3.42			c <sub>1</sub>		<sup>c</sup> 2
4	1020	450	3.18			<sup>1</sup> <b>c</b> <sub>1</sub>		c <sub>2</sub>
5	1330	590	3.38	đ				
6	910	490	3.50	c <sub>1</sub>			c <sub>2</sub>	
7 ·	1170	530	3.47			đ		
8	1300	<b>-580</b>	3.28				đ	
9	980	460	3.78		-	c <sub>1</sub>		
10	1130	<u>5</u> 90	3₊88́	đ				
11	1130	<b>51</b> 0	3.41	-			đ	
12	910	540	3.59		đ			
13	1070	560	3.81			<sup>c</sup> 1		<b>c</b> 2
14	1030	<b>520</b>	3,38					đ
15	1100	540	3.90	ď				
16	1020	660	3.66		c <sub>1</sub>		°2	
17	1040	580	3.63			c <sub>1</sub>		c <sub>2</sub>
18	990	470	3.44			c <sub>1</sub>		<sup>c</sup> 2
19	1350	580	3.94	ċ <sub>1</sub>		c <sub>2</sub>		
20	850	510	3.22	<u>-</u>		d		

d = [relatively] definite

p = probable

 $c_1$  = first choice;  $c_2$  = second choice

participants in the Research Program. Unfortunately, a change of policy has caused both a curtailment of funds for the R and D Section and a shift in emphasis toward action research, requiring competency in curriculum rather than in research methodology. In addition, the salaries paid for service in the Dade County R and D Division are only some \$200 above the basic salary the same teacher would get in a regular teaching position. This seems relatively uninteresting by contrast with the numerous leads well up in the five-figure category that have come our way from California, Georgia, North Carolina, Kentucky, Illinois, Virginia, etc. \*

IN RETROSPECT: All in all, the year has been profitable. A number of improvements could have been made, of course. We have all profited from the experience. A number of interesting problems arose, probably the most notable of which was the relative immaturity of a few of the participants. Perhaps this should have been anticipated. It is easy to think of people of this caliber as doctoral students with all the maturity thereof, when in reality doctoral students, while perhaps no brighter, are more seasoned, more serious perhaps, and more self-reliant. A few of the participants displayed definite "undergraduate" attitudes of relative reluctance to work beyond what had been

<sup>\*</sup>This has created a problem in the recruitment to the Research Training Program. Not only has it discouraged some Dade County teachers from applying, but it has also caused us to discourage anyone committed to remaining in the Miami area after completing the program.

specifically assigned; an inability to see the various aspects of the program as an opportunity for self-development. There was a tendency for a few to be hypercritical, a tendency which might have been expected as a logical resultant of the stress and frustration that a strenuous program of this kind is likely to generate. Overdependency in the form of seeking reassurance was another symptom. This was placed in sharp contrast by the exceptional drive and initiative displayed by a couple of the participants. These models, together with the vision of the tremendous possibilities presented by the program for people of this caliber, may have led the faculty to set unrealistic across-the-board standards of expectation.

On the other hand, pessimism is certainly not warranted. The participants have come through a demanding program and all in all appear relatively competent in basic research procedures. They have a good foundation for doctoral work and, if necessitated by finances and other personal considerations, for relatively sophisticated operation in a research position. They need research experience to find out, perhaps what they still don't know, but also what they have really learned. It would not be unrealistic to expect that within the next ten years all but one or two will be involved in a major way in a research capacity. Perhaps as many as 12 should have a doctoral degree. It would also be logical to postulate that even those who go back in the classroom will have been benefited in a number of significant ways from their participation in the program.